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A RAND NOTE

Process and Problems in Developing NATO
Tactical Air Doctrine

David J. Stein, Kimberly Nolan,
Robert Perry

June 1988

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Understanding the interests and tactics of our allies is important to improving cooperation with the Tactical Air Working Party (TAWP) of NATO. U.S. delegations are assigned to the TAWP for much shorter periods than their British and West German counterparts, who benefit from their longer experience and better knowledge. TAWP meetings are inauspicious forums for initial presentation of new concepts and procedures. Informal preliminary discussions improve the prospects of eventual acceptance, and preliminary multilateral panels are an effective channel for proposing doctrine. Such interactions have promoted early identification of contentious issues and potential solutions, development of appropriate game plans for the presentation of proposals within the TAWP, and enhanced understanding of operational concerns and institutional constraints.

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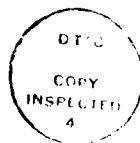
PREFACE

As part of a Project AIR FORCE study entitled "Allied Airpower in Europe: Problems and Prospects," The RAND Corporation has examined the doctrinal and operational interests of allied services in NATO. This Note reports one aspect of that research effort, the administrative process by which formal statements of NATO's tactical air doctrines are negotiated. This study should provide useful guidance to future U.S. delegations to the NATO-sponsored sessions where allied tactical air doctrine is developed; it may also be of interest to those concerned with improving NATO's warfighting potential by promoting greater harmony between U.S. and NATO air doctrines and those concerned with the effects of NATO's organizational structure and internal politics on the development of NATO air doctrine and on the elements of combined air operations.

Much of the information detailed herein was obtained through the first author's attendance at meetings sponsored by the Doctrine and Concepts Division of Air Force Plans and Operations, Headquarters USAF,¹ in efforts to develop a joint U.S. position for negotiating air doctrine with the allies, through attendance at Interservice Tactical Air Working Party (TAWP) meeting at NATO Headquarters, and by way of discussions with the many participants in this process, both American and allied.

After the first draft of this Note had been completed and circulated to the Air Force for comments, the first author left RAND. Additional research as well as revisions of both form and substance were the responsibility of the associate authors.

¹The responsibility subsequently was transferred to a newly created Long Range Planning and Doctrine Division of Plans and Operations.



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SUMMARY

This Note deals with the administrative processes and competing influences involved in developing NATO's tactical air doctrines. It offers a summary examination of the joint process for developing U.S. positions on NATO air doctrine and the combined process by which national proposals eventually emerge as formal NATO doctrine. Although chiefly examining the theater of greatest concern to the most powerful members of the Western Alliance, the doctrinal interests and negotiating behavior of other allies are also addressed. The Note also reviews the air power interests of Great Britain and West Germany and the processes by which they influence the development of NATO air doctrine. Observations on the development of NATO air doctrine and tentative suggestions for enhancing the U.S. position in negotiations over allied air power issues follow.

As the executive agent for the United States in matters affecting NATO air doctrine, the U.S. Air Force is a major influence in determining the fundamental principles that formally guide allied air forces in matters affecting combined operations.

The process of drafting NATO air doctrine is subject to three distinct sources of influence:

- competing national interests,
- the diverse institutional interests of various allied services and NATO military commands, and
- the organizational structure of the alliance.

The national delegates and NATO command representatives who attend the Tactical Air Working Party (TAWP) derive their distinctive doctrinal perspectives from such sources as national military history and the combat experiences of their services; national perceptions of threat; the operational capabilities, traditions, and preferences of their own services; budgetary constraints; and the range of available and affordable technologies open to them. Although NATO members may share ideals, they do not often share military traditions, capabilities, and interests. The often divergent objectives of NATO nations, services, and operational commands interact within a Tactical Air Working Party that is obliged to honor a "least common denominator" approach to doctrinal consensus. When changes occur, they tend to favor accommodations that do not greatly inconvenience individual NATO members and do not require the acceptance of uncomfortable changes to earlier principles of operation.

BRITISH AIR POWER INTERESTS

The air power interests of the United Kingdom reflect the operational experiences of the Royal Air Force (RAF) during both world wars as well as such more recent military and political experiences as the transfer of major responsibility for Britain's nuclear deterrent to the Royal Navy in 1969 and Britain's withdrawal from empire "East of Suez" in 1970. Such developments have caused the RAF to focus on air defense of the British Isles and tactical operations in NATO's Central Region.

Owing to budget restrictions, the RAF tends to favor tactical initiative, imagination, and operational simplicity over costly and complex technological innovations. British delegations to the Tactical Air Working Party are reluctant to accept developments in NATO air doctrine that would ultimately increase the costs of maintaining and operating the RAF.

WEST GERMAN AIR POWER INTERESTS

West German air power interests still are bound by the unique political circumstances that characterized German rearmament and entry into NATO in 1955. The military forces of the Federal Republic are fully integrated in the NATO command and control structure, having no mission outside the treaty constraints. West German interests in NATO air doctrine are massively influenced by concern for continuing American security guarantees, preserving the allied commitment to Forward Defense, and promoting East-West stability. West German interests emphasize an air doctrine that:

- Preserves the status quo and
- Avoids any textual change that might signal a weakening of allied commitment to Forward Defense or a lessening of NATO's operational capabilities.

The West German air force is primarily concerned with air defense missions but also wishes to influence NATO's operational decisions on such important issues as targeting, border-crossing authority, and the preservation of NATO's nuclear options. The goals and tactics of the West German delegation to the Tactical Air Working Party therefore include:

- Encouraging compatibility between 2ATAF/4ATAF procedures,
- Supporting the interests of the smaller nations represented in 2ATAF,

- Urging the harmonization of Central Region principles and procedures with those of the other NATO regions, and
- Promoting procedures that will encourage the most effective allocation of NATO air assets.

OTHER ALLIES' AIR POWER INTERESTS

Belgium and the Netherlands are mostly concerned with national air defense and providing tactical support to their national ground forces in the Northern Army Group sector. The small size of the Belgian and Royal Netherlands Air Forces limits the number of officers available to serve on NATO's doctrinal Working Parties, and their delegations usually follow the lead of the British and the West Germans. Moreover, the political consensus on defense within these countries is sometimes a fragile matter, a circumstance that encourages conservatism when doctrinal initiatives are proposed.

NATO allies located outside the Central Region want appropriate doctrinal attention to be directed toward:

- operational threats,
- command and control infrastructures, and
- operational capabilities and procedures.

For example, 5ATAF has a command and control structure very different from that of either 2ATAF or 4ATAF, and national delegations from Italy, Greece, and Turkey have repeatedly called for the development of appropriate regional supplements to existing NATO publications on combined procedures. Denmark and Norway share a tradition of self-defense that translates into a unique air doctrine concept emphasizing air defense and opposition to invasion from the sea. Doctrinal initiatives that call for or describe air operations much beyond the bounds of these politically circumscribed interests cannot expect support from Norway or Denmark. Greek and Turkish antagonisms not only make the ratification of NATO air doctrines more difficult by complicating the internal negotiating process, they also pose substantive difficulties in developing an adequate set of doctrinal procedures for the control of aircraft and the management of airspace in and around the Aegean.

IMPROVING COOPERATION ON NATO AIR DOCTRINE

Understanding the interests and tactics of one's allies is an important key to improving cooperation within the TAWP. To some extent, this task may be more difficult for a U.S. delegation composed of officers with much briefer assignments to the TAWP than their counterparts from other nations. Notably, the British and the West German delegates, who serve longer tours of duty at the TAWP, benefit from their longer experience and better knowledge.

The Working Party meetings are inauspicious forums for the initial presentation of new employment concepts and tactical procedures. Informal preliminary discussions considerably improve the prospects of eventual acceptance, a circumstance the British have long appreciated and exploited. Preliminary multilateral study panels also seem to constitute an effective channel for proposing doctrine. Such interactions have generally promoted:

- Early identification of contentious issues and potential solutions,
- Development of appropriate "gameplans" for the presentation of particular proposals within the TAWP, and
- Enhanced understanding of operational concerns and institutional constraints.

Although national interests and differences in service traditions and capabilities will continue to create tensions in the process of ironing out a common NATO air doctrine, improved doctrinal integration can result from better ordered U.S. participation in TAWP meetings. Keys to success include a better understanding of the process and of the fundamental national interests that shape the formulation of NATO air doctrine.

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Members of the RAND staff who made most useful comments on several earlier drafts include Benjamin Lambeth, Willard Naslund, Carl Builder, and Arnold Kanter. Other RAND colleagues who contributed both substance and commentary include Christopher Bowie, John Lund, Mark Lorell, Alan Vick, Jonathan Pollack, Peter Stan, and Lewis Jamison. Glenn A. Kent and Edward L. Warner, III made major contributions to discussions of air doctrine issues. Finally, Nanette Gantz of RAND and Williamson Murray of Ohio State University provided reviews that had a great deal of influence on the shape and content of this Note.

Several U.S. Air Force officers with wide experience in tactical air operations and issues provided help during the preparation of this Note: Major William Hopewell; Lieutenant Colonel D. W. Bradley, Jr.; Colonel Thomas A. Cardwell, III; Lieutenant Colonel C. Richard Frishkorn; Colonel Alan Heston; Colonel Clifford R. Krieger; Lieutenant Colonel Kenneth Sublett; Major Kenneth Ertle; Colonel Alan Gropman; Lieutenant Colonel D. J. Alberts; and Lieutenant Colonel Richard Rose of the Air National Guard Fighter Weapons School.

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I. INTRODUCTION

Over the past two decades, the NATO allies have developed administrative institutions and standardized agreements designed to promote the observance of a common tactical air doctrine among the member states. Although the effort has achieved some measure of success, negotiations to establish a common NATO air doctrine have been impeded by problems arising in national interests and by the customary difficulties of obtaining agreement among the 14 air forces of the members of the alliance. Understanding the process and problems of developing NATO tactical air doctrine is essential to promoting greater success in the integration of national air doctrines.

As set forth in Air Force Manual 1-1, the purpose of basic doctrine is to provide fundamental principles for guiding the organization and activities of the U.S. Air Force in both peace and war,¹ not to document or determine strategy for securing national interests or to detail the precise plans for engaging potential adversaries in combat. The first task is properly within the domain of national strategy itself, and the second is the substance of operational planning. Doctrine provides planners with general guidance on the best use of military power in pursuit of national objectives while giving operators a common setting in which to develop necessary concepts, tactics, and associated procedures. Additionally, doctrine helps to define objective standards for training and equipping forces.²

The different levels of organization within the U.S. Air Force and the widely different military activities they conduct require that doctrinal guidance differ from one level to another in orientation, scope, and detail. In response to this need, the U.S. Air Force distinguishes among basic, operational, and tactical doctrines even though this is an imperfect hierarchy.³ Despite the occasional overlap in content among basic, operational,

¹Air Force Manual (AFM) 1-1, *Basic Aerospace Doctrine of the United States Air Force*, Department of the Air Force, Washington, D.C., 1984. For a statement on the importance of internal debate in the development of USAF doctrine see Colonel Clifford R. Krieger, "USAF Doctrine: An Enduring Challenge," *Air University Review*, Volume XXXV, No. 6, September-October 1984, pp. 16-25.

²For more on the relation among strategy, doctrine, and operational concepts see Glenn A. Kent, *Concepts of Operations: A More Coherent Framework for Defense Planning*, The RAND Corporation, N-2026-AF, August 1983.

³Regarding the relationships among basic, operational, and tactical doctrine, the latest edition of AFM 1-1 states: "The three levels of aerospace doctrine. . . are neither mutually exclusive nor rigidly limited by precise boundaries." In AFM 1-1, Basic Doctrine is defined as a statement "of the most fundamental and enduring beliefs which describe and guide the proper use of aerospace forces in military action;" Operational Doctrine "applies the principles of basic doctrine to military actions by describing the proper use of aerospace forces in the context of distinct objectives, force capabilities, broad mission areas and

and tactical doctrines, U.S. Air Force manuals generally succeed far better than analogous NATO documents in maintaining an overall distinction in orientation, scope, and detail. The more pronounced overlap that sometimes characterizes NATO doctrines may explain why a single document can contain both broad statements on command relationships in joint operations and detailed sections on communications procedures between aircraft and forward air controllers. Although it is desirable that each of NATO's doctrinal publications be able to stand as an independent document, substantive overlap is sometimes necessary to insure uniformity and completeness. Therefore, what a combat pilot may consider "boilerplate" may be quite meaningful to an Air Component Commander charged with translating apportionment decisions into allocation orders; but the rules for communicating with a forward air controller are likely to be of little immediate concern to a general officer commanding a joint force. Of course, the "doctrine" covering command relations and the "doctrine" covering communication procedures with forward air controllers are both essential to ensuring effective force employment.

Regardless of orientation or scope, the different levels or categories of military doctrine may not be developed in isolation from one another. Moreover, if any doctrine in any category is to be applied successfully in a conflict, its value depends on whom it is written for and how clearly its principles are stated. The set of doctrines governing the operations of a military force must form a coherent statement of "rules." That is, the aims, principles, objectives, and procedures must emanate from a single source of acknowledged authority; this necessary coherence is doubly important in the combined operations arena of coalition warfare.

Drafting doctrinal statements raises the question of who will write the doctrine: those who *provide* forces, those who *plan* force employment, or those who *implement* force employment plans?⁴ Each of these functional groups has a distinctive position on the best way to organize and use military power, and these separate perspectives may lead to disagreements over principles. In the U.S. Air Force, the process of drafting basic doctrine is centrally managed from within the Air Staff, where the evolving visions of force providers, planners, and operators are continually solicited. Perhaps this explains why U.S.

operational environments;" and Tactical Doctrine "applies basic and operational doctrine to military actions by describing the proper use of specific weapons systems to accomplish detailed objectives." AFM 1-1, p. 2.

⁴This familiar distinction derives from the fact that the individual U.S. services are tasked "to organize, train and equip forces for assignment to Unified and Specified Commands." The nominal prerogatives of command and control are normally vested in the Unified or Specified Commander, and not in the parent service. See Department of Defense Directive (DODD) 5100.1, "Functions of the Department of Defense and Its Major Components," April 3, 1987.

Air Force doctrine remains dynamic. In the NATO arena, however, differences among force providers, planners, and operators are compounded by the number and nature of the different national participants. Drafting combined air doctrine for NATO occurs without the benefit of a central authority. It is often the least common denominator that succeeds in becoming accepted.⁵

The major concern of this Note is with the development of NATO air doctrine process. The fact that combined air doctrine states the rules intended to govern all NATO-member air forces in coalition warfare makes the doctrine development process itself an element of considerable importance. This Note describes the bureaucratic environment in which allied negotiations on air doctrine take place and outlines the role and interests of key actors in the process. It also describes some of the major substantive issues currently of concern to member nations.

⁵This point is made by Lieutenant Colonel D. J. Alberts, *Deterrence in the 1980s: Part II "The Role of Conventional Air Power,"* International Institute for Strategic Studies, Adelphi Paper 193, Winter 1984, p. 14.

II. THE ORGANIZATIONAL PROCESS AND POLITICS OF NATO AIR DOCTRINE

NATO DOCTRINE AND THE MILITARY AGENCY FOR STANDARDIZATION

The political-military leadership of the alliance adopted the NATO strategy of flexible response in 1967. With that adoption came a requirement that appropriately detailed guidance be provided to lower echelons of command so that militarily effective campaign plans and operations could be developed.¹ Although developing NATO campaign plans is the prerogative of such combined force commanders as the Commander in Chief Central Europe (CINCENT) and his air component Commander for Allied Air Forces Central Europe (COMAAFC), since 1951 NATO has assigned the general task of formulating its military doctrine to the Military Agency for Standardization (MAS). The stated aim of this agency is to increase NATO's combined operational effectiveness.²

The MAS views standardization as essential when operational plans depend on it and highly desirable when it enhances force capabilities. In the case of air doctrine, standardization among the allied forces is considered essential to the conduct of NATO air operations, as a means of insuring operational cohesion and enhancing combined force capabilities. However, in some other cases the MAS views standardization as undesirable: The MAS does not support standardization when it hinders war production capability, national or collaborative research and development, or operational technique. Notably, the MAS has no authority to impose standardization on the member nations, and national participation in developing standardized doctrine, like participation in equipment standardization programs, remains voluntary.

NATO's Military Agency for Standardization has separate service boards for Air, Land, and Naval. The Air Board's domain includes operations, technical design and support, and general support. It oversees the development of "doctrine" and provides guidance on each of these areas of interest. The Air Board created a Tactical Air Working Party (TAWP) in the 1970s expressly to develop a formal statement of NATO Air Doctrine and other doctrinal publications as needed.

¹The actual development of a common NATO doctrine began in 1970 in direct response to a request made by the Supreme Allied Commander Europe, General Andrew Goodpaster, USA.

²Founded by NATO's Military Committee, the Military Agency for Standardization's full aims and objectives can be found in the organization's original 1951 charter as published by NATO's Military Committee in MC-20/8.

The Tactical Air Working Party is one of some 50 working parties and panels operating under the general auspices of the MAS, with some 20 working within the domain of the Air Board alone. Its particular aim is to "improve interoperability among NATO forces engaged in tactical air operations and thereby achieve a high degree of total force capability."³ The MAS considers "common doctrine and procedures" as essential to achieving a high degree of total force capability. The MAS/Air Board convenes the TAWP once every year to update and add to existing NATO doctrines.

The national delegations to these annual meetings are convened as a body of experts on tactical aviation. The delegates are usually experienced operators currently assigned to either national or NATO Headquarters staffs, or to major NATO or national commands. Participation is open to all member nations of the alliance, Supreme Headquarters Allied Powers Europe (SHAPE), and to all the several major and subordinate NATO commands. Although representatives from SHAPE and the NATO commands may participate in the Working Party sessions, only the delegates from member states can vote to ratify doctrines.

National interests and the internal politics of the alliance often affect negotiations at TAWP meetings and influence the development of NATO doctrine. For example, despite French withdrawal from the integrated military structure of NATO in 1966, a French delegation normally attends the meetings, and its members generally participate as "interested observers"—stating their interests and "noting the sense of the working party" on particular issues. The French delegates steadfastly avoid taking positions that might suggest formal national acceptance or ratification of NATO doctrine. Through such participation, French planners may remain aware of NATO's evolving concepts and procedures.

National interests frequently intrude and affect the work of the TAWP in other respects as well. Continuing antagonisms between Greece and Turkey have frequently led the two states to adopt an *ad hoc* pattern of alternating attendance in order to avoid addressing operational issues in a common forum.⁴ No Spanish delegation attended the 1984 meeting because the new Spanish government had not yet determined if it wished to remain in the alliance.⁵

³See Terms of Reference for the Interservice Tactical Air (TA) Working Party (WP), MAS(AIR)373-TA, Air Board, Military Agency for Standardization, NATO HQ, Brussels, 31 July 1985, p. I-1.

⁴The most sensitive tactical aviation issues between Greece and Turkey naturally concern airspace control and air defense, with particular regard to their disputes over territory and national domain in the Aegean.

⁵Following a governmental decision to remain in NATO, a delegation from Spain attended the 1985 meeting of the TAWP.

Finally, the political traditions of Norway and Denmark have directed their defense concepts almost exclusively to matters of self-defense and territorial integrity; consequently their delegations at the TAWP tend to concentrate on doctrinal matters relating to the conduct of operations within the Nordic region. To date, however, the efforts of the military professionals engaged in Working Party activities have been fairly free of the overt political tensions that sometimes occupy the alliance in general.⁶

THE DEVELOPMENT AND PROMULGATION OF ATPS

The Tactical Air Working Party is currently responsible for eight NATO Standardization Agreements (STANAGs) and five Allied Tactical Publications (ATPs), each covering some aspect of NATO air doctrine:

- *NATO Tactical Air Doctrine* (STANAG 3700 and ATP-33)
- *Offensive Air Support Operations* (STANAG 3736 and ATP-27)
- *Tactical Air Support of Maritime Operations* (STANAG 3703 and ATP-34)
- *Counter Air Operations* (STANAG 3880 and ATP-42)
- *Electronic Warfare in Air Operations* (STANAG 3873 and ATP-44)
- *Method of Warning Own Aircraft of (Suspected) Enemy Fighter Attacks* (STANAG 3275 TA)
- *Camouflage of Aircraft* (STANAG 3687 TA)
- *Minimum Qualifications for Forward Air Controllers* (STANAG 3797 TA).

Responsibility for each ATP is assigned to a custodian nation that becomes responsible for coordinating all proposals for amendment and modification. For example, having taken the lead in developing the initial draft for NATO Tactical Air Doctrine during the 1970s, the United Kingdom serves as custodian for ATP-33. The custodian coordinates proposed changes or amendments, and all the materials are to be distributed throughout the alliance before the Working Party's next annual meeting. Following discussions and final acceptance by all members of the Working Party, accepted changes and amendments are

⁶A ranking U.S. Defense official remarked that the proceedings of the Tactical Air Working Party, and similar activities conducted "quietly" among the officers of allied services, are hardly newsworthy by comparison with the headline grabbing alliance issues that pile up on his desk. He further remarked, however, that should a major NATO-Warsaw Pact conflict occur, all the "high policy" issues that currently occupy his time will suddenly become irrelevant, and the standing agreements that allied officers hammered out during peacetime will "become the only means of effectively waging coalition warfare."

sent to the Air Board of the parent standardization agency and then distributed to the member nations for final ratification.⁷ Following ratification by the member nations and promulgation by the Chairman of the MAS, the amended document becomes the accepted NATO doctrine for combined operations. The STANAGs are expected to be incorporated into national guidance for combined operations but are not normally issued at the unit level. National operational units, however, are expected to have ATPs on hand.⁸ The formulation and distribution of a written statement of NATO air doctrine bears special significance because the United States and Canada are the only two allies that have written national air doctrines.

All this seems a fairly smooth and orderly process, but there are impediments that can delay the final promulgation of an initial proposal for years. Such delays often result from national differences regarding preferred operational practices, conflicts between allied proposals and a given nation's military acquisition policy, and competing joint agreements among the services of a single nation.

DEVELOPING A JOINT U.S. POSITION ON COMBINED DOCTRINE⁹

The development of a U.S. position on any combined doctrine involves all four U.S. armed services. The USAF is the executive agent with primary responsibility for developing and coordinating the U.S. position on the ATPs assigned to the TAWP and is

⁷For a discussion of the role of the MAS in the development of doctrine, see Major General Pat Mitchell, "Increasing the Combined Operational Effectiveness of NATO Forces: The Role of the Military Agency for Standardization," *NATO Review*, No. 1, 1984, pp. 16-19.

⁸The Danish Air Force, for example, has reprinted reduced-sized copies of ATP-27B and made them available as flight reference manuals for aircrews preparing to engage in Offensive Air Support. However, the Danish Air Force is committed to a unique Nordic air doctrine known as "FXA," which describes only limited air defense and anti-invasion missions. The annexes to ATP-27B provide the Danish Air Force with basic guidance on procedures for all close air support, battlefield air interdiction, and tactical air reconnaissance missions. This use of NATO doctrine as "national" doctrine is a common practice for those allies having no military commitments beyond the boundaries of the treaty area, or political constraints on their military involvement within NATO. By contrast, the Fighter Weapons Instructor Course of the U.S. Air National Guard Fighter Weapons School explains to students that the procedures for controlling attack aircraft in NATO Europe may differ from those stated in Joint USAF-U.S. Army agreements or the Air Force's Aerospace Operational Doctrine issue on Tactical Air Operations.

⁹The remaining sections use the Suppression of Enemy Air Defenses (SEAD) as an example of a major issue frequently addressed by the TAWP. At the 7th TAWP meeting in 1984, a U.S. proposal was presented for moving SEAD from ch. 9 of ATP-33 on "Supporting Air Operations" and "elevating" it to ch. 4 on "Air Operations Against Enemy Air Assets" with equal status as a major counterair mission. Allied opposition to the U.S. proposal was considerable, and the proposal was not accepted. USAF doctrine currently reflects SEAD as a counterair mission. See AFM 1-1, p. 3-3.

also the principal in the U.S. delegation. Additionally, the USAF contributes to the air-related aspects of other ATPs for which the U.S. Navy or Army have the lead role.¹⁰

The development of an American position on NATO doctrine involves many of the institutions normally engaged in developing service or joint doctrine. For example, the Long Range Planning and Doctrine Division at Headquarters USAF (AF/XOXFP), is specifically tasked by the Chief of Staff with drafting USAF basic doctrine. Additionally, that division is responsible for coordinating the U.S. position on combined doctrine for air operations in NATO with the major USAF commands and the other services, with composing the statement of a joint U.S. working position, and with forwarding to custodian nations all U.S. proposals for amending ATPs.

The fact that the Long Range Planning and Doctrine Division is part of the Pentagon-based Air Staff reflects the USAF's highly centralized approach to doctrine development. In contrast, the U.S. Army's designated agency for doctrine development is the Training and Doctrine Command (TRADOC), headquartered at Fort Monroe, Virginia. This asymmetry between the USAF and U.S. Army in organizational entities tasked with doctrine development has on occasion been overcome because of the physical proximity of TRADOC and the USAF's Tactical Air Command (TAC). The proximity of TRADOC and TAC has led to unique collaborative efforts in developing Army-Air Force doctrine. Such was the case when TAC cooperated with TRADOC in drafting the joint agreement on attacking the Second Echelon—a document the Air Staff had only a minor role in producing.¹¹

¹⁰See Department of Defense Directive (DODD) 5100.1, "Functions of the Department of Defense and its Major Components"; JCS Memorandum of Policy 147, "Policy with Respect to Military Standardization between the U.S. and its Allies"; and AFR 1-2, Assignment of Responsibilities for Development of Doctrine and Mission Employment Tactics." For a more complete account of USAF involvement in developing combined doctrine see Lieutenant Colonel Thomas A. Cardwell, "Combined Doctrine—What Is It?" Doctrine Information Publication No. 3, Department of the Air Force, Washington, D.C., 1978.

¹¹This TAC-TRADOC connection was not without its limitations and costs. The JSAK document was widely criticized within the Air Staff and other elements of the Air Force for its departure from accepted USAF command and control philosophy. Moreover, the JSAK document was presented to the NATO allies without adequate preparation, and the reception was reportedly cold if not hostile. See "Joint Operational Concept: Joint Attack of the Second Echelon (J-SAK)," Tactical Air Command Pamphlet 50-26, December 1982; Training and Doctrine Command Pamphlet 525-16, December 1982; and U S REDCOM Pamphlet 525-7, December 1982. In 1988, JCS Pub. 1-01 redefined "joint" doctrine as that specifically approved by the Chairman, JCS, following review by service, united and specified commands. This reflected the provisions of the Goldwater-Nichols DoD Reorganization Act of 1986. The "second echelon" concept eventually received USAF and Army staff approval on 28 November 1984.

Consistent with the Air Force's highly centralized management approach is a view of the institution itself as a "provider of forces." This may be contrasted with the view of the major commands and numbered air forces as "employers of air power." As a provider of forces, the USAF has an obvious interest in determining how those forces *ought* to be employed, and it is to this end that the drafting of USAF doctrine is a prerogative tightly held within the Air Staff. All operational plans involving USAF assets are reviewed for approval by the Air Staff. However, the decisions on how USAF-provided forces will actually be used in NATO is the prerogative of the regional Commanders in Chief in consultation with their Air Component Commanders, not of the USAF Chief of Staff. This creates occasional differences between those who plan *national* forces in peacetime and those who plan for *combined* force employment in war. The issue is whose vision of future conflict should determine the needs of the service and dominate the substance of its doctrine: national force providers, combined force planners, or actual operators? In the extreme this issue would arise regardless of American participation in mutual defense alliances.

Explicit doctrinal differences also emerge as a result of the wide range of USAF's global responsibilities, with the NATO commitment being but one among other contingencies. Although NATO contingencies form a substantial and important part of U.S. planning scenarios, the role of all four U.S. services is global in scope, and each service writes doctrines with global rather than regional capabilities and threats in mind. Consequently, these doctrines and procedures are often distinct from, and sometimes at odds with, the allied doctrines intended to guide the conduct of these same forces in NATO-oriented operations.

U.S. global requirements and service traditions, and U.S. monopolies on some weapon systems and capabilities also make particular aspects of U.S. national service doctrines unique. For example, the USMC has an assigned role in defending the Northern Flank of NATO. However, USMC doctrine (approved by the JCS in March 1986) also asserts that when Marine air and ground forces are engaged in amphibious operations, command and control for both air and surface forces are to be vested in a single Marine commander. This USMC emphasis on autonomy arises in service tradition and historical experience. Marine Corps doctrine acknowledges a willingness to accept a theater commander's orders, but local USMC commanders may retain central authority over air assets in line with the Corps' combined operations concept.¹² Although in concept the

¹²It is Marine Corps policy that: "The Marine Air-Ground Task Force (MAGTF) commander will retain operational control of his organic air assets." However, Marine Corps policy also states that: "Nothing herein shall infringe on the authority of the Theater or joint force commander, in the exercise of operational control, to assign missions, redirect

operational practices implied by the Marine Corps' doctrine and training could create problems for regional planners attempting to integrate the USMC into combined NATO operations, the underlying operational premise reflected in JCS policy is that local USMC commanders will in fact respond to joint force command support levies.

Additionally, problems arise in deciding how to use tactical capabilities unique to the U.S. inventory, for example the USAF's inventory of *Wild Weasels*, currently F-4Gs, assigned to defense suppression. USAF doctrine views the suppression of enemy air defenses as a third element in the counterair campaign, equal to offensive and defensive counterair operations in its importance. However, most of the NATO allies and many on the staff of Allied Air Forces Central Europe still consider defense suppression to be a support mission. Although they do not dispute its value, they do not accord the same mission status to defense suppression as does the USAF. This difference of emphasis derives in part from the fact that the allies have little independent capability to conduct extensive defense suppression operations and from their conviction that any temporary or local need for a SEAD program can be met by an allotment order tasking USAF SEAD assets already deployed in the theater.¹³

Differences between U.S. service doctrines and the combined doctrines of NATO can also create problems in the orientation and focus of U.S. training activities: are U.S. forces trained to operate using U.S. procedures or those of the alliance?¹⁴ Many U.S. forces are assigned to meet more than one national commitment and cannot dedicate their training exclusively to the operational procedures unique to a given theater of potential conflict.

efforts, and direct coordination among his subordinate commanders. . . ." See "Policy for Command and Control of USMC TACAIR in Sustained Operations Ashore," Enclosure 1 to *Marine Air-Ground Task Forces (MAGTFs)*, NAVMC 2710, POC, Department of the Navy, Headquarters United States Marine Corps, Washington, D.C., 28 May 1985, page 1. JCS review and approval were recorded by way of JCS SM-142-86, 5 March 1986. It requires that "nothing infringe on the authority of the theater or joint force commander" and that the Marine task force commander make all forces excess to his direct support requirements available for tasking by the joint force (air) component commander.

¹³Many of the USAF's assets specifically dedicated to Electronic Warfare and therefore capable of conducting SEAD are already deployed in Europe. Unfortunately, there are too few F-4Gs to provide coverage for every formation that attempts to penetrate enemy airspace during wartime. Indeed, even after reinforcement from the continental United States, there are too few defense suppression assets to provide enough localized SEAD coverage for all the air operations transiting the inner-German border. The actual wartime solution to this problem will depend on the resource management scheme and overall campaign strategy developed by the Commander of Allied Air Forces in Central Europe in support of the Theater Commander's objectives.

¹⁴According to members of the Doctrine and Concepts division at TAC Headquarters, Langley AFB, this difference represents no problem. "When we're in NATO, we'll do it their way; everywhere else, we'll run our own show on our own rules. The end-game is the same either way."

KEY ACTORS AND THE DEVELOPMENT OF COMBINED DOCTRINE¹⁵

Creating agreements covering the joint operations of two or more services within a particular nation is sometimes difficult, but less so than writing combined doctrine to coordinate all the likely actions of the combined forces of all NATO member states. Complicating the obvious problems of coordinating the viewpoints of several services across the nations is the political context of the entire exercise. Although the United States dominates many of NATO's political-military activities, in order to preserve alliance cohesion the U.S. delegation to the TAWP must avoid being perceived as dominating either the process or the product of drafting combined doctrine.¹⁶

The primacy of the United States and the substantial contributions of the United Kingdom and the Federal Republic of Germany do not preclude other NATO members from sharing responsibility for drafting allied doctrine. But neither can the combined political-military weight of the three larger countries be ignored. Their armed forces form the bulwark of NATO's defense capability in the Central Region. And although prudence, politics, and the geography of the NATO-Warsaw Pact balance underscored the importance of the other regions within NATO's domain, the main concentration of the Soviet and Warsaw Pact forces kept the attention of the Alliance riveted on the Central Region. As a result, the United States, Great Britain, and West Germany assumed an importance in drafting allied doctrine that reflected NATO's military emphasis on the Central Region and was consistent with each country's degree of political influence within the alliance.

The concentration of these three major allies within NATO's Central Region has not led to a complete convergence on doctrine or procedures. Both 2ATAF and 4ATAF tend to operate as "national" tactical air forces rather than as a "combined" force, and therefore it may require considerable effort to put the *Allied* back into Allied Tactical Air Forces during

¹⁵This section will review some of the impediments encountered in the combined arena and will continue to focus on the issue of Suppression of Enemy Air Defense (SEAD).

¹⁶For competing views of NATO's internal management problem consider the following: Robert Komer, former U.S. Ambassador to NATO, once described the alliance as a single gorilla and 15 chimpanzees, saying: *"Everybody knows that chimps are smarter than gorillas, and if they coordinate their efforts they can often outwit the great ape—but if the gorilla decides to move in a particular direction, the chimps had better get out of the way!"* Another view put forward by Colonel Clifford Krieger, former Chief of the Doctrine and Concepts Division, Headquarters USAF, and Chief of the U.S. delegation to the 7th TAWP meeting, was that: *"These sessions provide an opportunity for the smaller countries to speak out and be heard. Sometimes that's more important in creating alliance cohesion and an effective total force capability than getting every 'i' dotted and 't' crossed just the way we want."*

wartime. For example, in 2ATAF where the Royal Air Force Germany is dominant, there is no specific doctrine or Standard Operating Procedures (SOPs) covering the conduct of SEAD. But in 4ATAF, which is chiefly the domain of the U.S. Air Force Europe, there is a SOP on SEAD. This says something for the "national" character of the two ATAFs in that it reflects the RAF's "SEAD-less" inventory. More important, however, the lack of a SOP on SEAD in 2ATAF could in theory disrupt effective allotment of F-4Gs to 2ATAF for localized SEAD operations. Nevertheless, the issue of SEAD is addressed in operational plans for 2ATAF, suggesting that 2ATAF/NORTHAG commanders have given considerable thought to how they might use any USAF assets made available to them. Clearly services and commands need not acquire a specific capability to state their preferred employment concepts regarding capabilities made available to them.

National doctrines, particularly national tactical doctrines, often reflect unique service traditions and tactical capabilities. It is often difficult to gain NATO-wide acceptance for a unique national view, in part because of a preference for the familiar and the accustomed; but this difficulty could arise in antipathy to the interests of the nation promoting a given procedure, or protecting some highly valued national prerogative or mission priority. Opposition to particular doctrinal proposals may be more likely if the proposals originate with the United States, particularly if they entail capabilities or procedures not common to the inventories or practices of other allies. Indeed, the European allies are generally wary of accepting certain American proposals for improving NATO doctrine if they suspect that such proposals contain hidden agendas for expanding NATO-wide operational requirements, with attendant implications for costly inventory modernizations or system upgrades.

By keeping combined doctrine *common*, the European allies can avoid giving the United States a point of leverage for urging them to do more for themselves by buying more hardware, especially U.S.-manufactured hardware. As suggested earlier, a good example of European wariness regarding American doctrinal initiatives is the fate of U.S. proposals for changing the status of SEAD in ATP-33. At present, among the NATO allies only the United States possesses the capability to conduct such operations. And although AFM 1-1 and USAF operational doctrine on tactical operations view SEAD as a separate but equal element of an overall counterair campaign (and essential to conducting operations in highly defended enemy airspace), the European allies, particularly the British, prefer to treat SEAD as a support mission.¹⁷

¹⁷It has been suggested that RAF planners in Germany see only a limited need for SEAD because they plan to slip two-ship sorties across the border. Although this argument implicitly contends that the days of large strike packages are over, it fails to take into account the need for obtaining localized ingress and egress windows at appropriate times. If any "packaging" is to be done, it will probably be managed by control centers that are

In addition, NATO has sometimes found it difficult to keep operational doctrine in tune with evolving operational techniques and weapon developments. Tactics and technology can change at a faster rate than does the administrative process of developing and ratifying NATO's doctrinal initiatives. American proposals on SEAD have had just such a history, dating back at least to 1978.

provided a limited amount of SEAD coverage for a given period of time by a command level with sufficient perspective to forecast the need. This does not vitiate the USAF argument that SEAD is a major element in the counterair campaign, but neither does it undermine the position of those allies who view SEAD primarily as a support mission. The SEAD capabilities provided by USAFE will probably be managed as special assets within COMAAFCE's air campaign.

III. VARIOUS ALLIED INTERESTS AND THE TAWP PROCESS¹

Although the delegates to the Tactical Air Working Party are convened as a collective body of experts on tactical aviation, the parent Air Board of the MAS naturally expects that each delegation will represent its national interests. As a democratic forum, the Working Party routinely proceeds toward the development of NATO air doctrines by building a consensus, and in these efforts the various delegations reasonably employ many of the same parliamentary tactics and techniques that are common to most Western democratic institutions. The non-national representatives from Supreme Headquarters Allied Powers Europe, Allied Air Forces Central Europe, and the other NATO commands are also welcome to take an active part in the proceedings, but the major players remain the national delegations, particularly those from the United Kingdom, the Federal Republic of Germany, and the United States.

Although the USAF could provide an expert on every facet of doctrinal concern, an effort is made to keep the size of the U.S. delegation to a minimum number to balance representation among the allies in terms of both people and issues addressed. This policy may promote alliance cohesion and create the appearance of equality at the conference table, but limiting U.S. participation may also risk the subordination of U.S. doctrinal objectives to allied interests. Allied delegations are not so constrained in general, and the British and West Germans are particularly effective at directing the Working Party's proceedings toward their own national ends. These two allied delegations usually include officers with superior working knowledge of the Tactical Air Working Party gained from extended years of involvement in the NATO doctrine process, giving them an advantage in negotiating allied doctrine.

The security needs and air power interests of each NATO partner are a function of individual military histories and national perceptions of the Soviet threat, as well as current and projected inventories. These factors interact with national budgets and other domestic factors to determine the role that air power plays in their national security concerns. It is worthwhile to review these air power experiences and interests and to ask how they influence the national delegations to the TAWP and their interests in the development of NATO air doctrine.

¹Detailed studies of individual allied air forces in NATO have been prepared as part of RAND's research for the U.S. Air Force. What follows is an independent overview that relates the interests of selected member nations to the behavior of their delegations to the TAWP.

BRITISH INTERESTS AND THE ROLE OF AIR POWER

Four factors influence the general context for contemporary British air power interests: (1) the need to provide Britain with an independent nuclear deterrent, (2) the reduced military role of the United Kingdom in the postwar world, (3) fiscal constraints, and (4) the historical imperative of providing air defense for the British home islands. The setting in which the Royal Air Force defines the "proper" role of air power in Europe and thus its interests in the development of NATO Air Doctrine is shaped by these four factors, by its own operational experience, and by the transition in NATO strategy from Massive Retaliation to Flexible Response.

From the late 1940s until 1969, the major offensive mission of the RAF was delivery of nuclear weapons on urban-industrial targets in the Soviet Union. To accomplish this mission the RAF spent massive resources in developing and supporting a strategic bomber force at the expense of the tactical forces. Following the introduction of *Polaris* boats for the delivery of Submarine Launched Ballistic Missiles in 1969, the mission emphasis of the RAF shifted from strategic nuclear warfare to tactical operations, roughly coinciding with NATO's transition in 1967 from a strategy of Massive Retaliation to one of Flexible Response. A consequence was to place additional emphasis on conventional operations that underscored the RAF's new mission orientation.

During the early postwar period, the United Kingdom reduced former colonial commitments and the size of its global commitment, which in turn reduced the notional extent and nature of the threats faced by the RAF. Great Britain's membership in NATO, and later the Common Market, focused the foreign policy interests of successive governments on Europe. Following the decision in the mid-1960s to withdraw from the imperial role of projecting power "East of Suez," the RAF was able to concentrate on Europe.

RAF training and acquisition efforts emphasize two particular missions: (1) low-level ground attack missions in NATO Europe² and (2) air defense of the United Kingdom. In conjunction with the historical pattern of research and development in British aerospace, the emphasis on air defense and interdiction has saddled the RAF with aircraft designs it came to favor during the 1950s and 1960s, notably the *Phantom*, *Lightning*, *Harrier*, *Jaguar*, and *Tornado*. However, because the RAF has not been able to obtain funding sufficient to

²The "low-level" aspect of the RAF's interdiction training program is a tactical procedure driven by the nature of the Soviet SAM threat in Europe and the RAF's countermeasure capabilities. In doctrinal terms, low-level interdiction is an operational imperative for the RAF determined more by the limits of its capability and less by any sense of overarching principles of air power.

keep pace with either the advancing Soviet threat or the continuing rate of modernization in the USAF, two distinctive British attitudes have emerged respecting air power in Europe: (1) a perceived need to keep NATO doctrine from changing more rapidly than can the RAF's combat capabilities and (2) a need to emphasize tactical innovation and simplicity over technological sophistication.³ Indeed, chiefly but not solely because of the difficulties of funding advanced technology weapons in sufficient numbers, the RAF has tended to rely less on the magic of hardware and more on imaginative tactics.

The need to emphasize operational initiative also reinforces some other longstanding institutional attitudes within the RAF. For example, although both the RAF and the USAF may emphasize decentralized execution of air missions, the RAF stands apart in allowing for greater autonomy at lower echelons of command. This institutional attitude encourages the devolution of command decisions for targeting and weaponeering down toward the base level rather than reserving it at the air force level.

Older national and institutional interests and attitudes persist in the contemporary RAF. One is the RAF's air defense mission. The perceived importance of obtaining air superiority early in a conflict stems largely from lessons learned during World War I and the Battle of Britain in 1940. The RAF supports NATO commands that can provide a degree of air defense for British territory. In addition, the present RAF Strike Command is heir in part to the World War II traditions of the Bomber Command and the postwar V-bomber force.

The RAF currently lacks a wide array of target acquisition aids and sophisticated external engagement systems, and some British aircraft with sophisticated on-board engagement systems may be dedicated to NATO strike missions and therefore be unavailable for other aspects of conflict. As a result, many of the aircraft in RAF Germany (RAFG) must go against the intensive Soviet threat with less than optimal acquisition and engagement systems for ground attack. This results in a RAFG emphasis on attacking such preplanned, fixed targets as bridges, railheads, choke points, and other appropriate killing zones.⁴

The RAFG also suffers from severe limitations in nationally owned capabilities for acquiring real-time intelligence. Therefore, the RAFG must rely largely on NATO sources to attack newly identified time-urgent targets. This intelligence dependence is critical for

³These comments draw on research by Christopher Bowie for the RAND project on NATO air doctrine.

⁴The RAF's *Tornado* is both all-weather and night capable. The *Tornado GR1* armed with a British-made JP-233 dispenser pod is considered quite effective in offensive counterair. The question is ultimately one of sufficient funding for sufficient numbers of aircraft and munitions. See Air Chief Marshall Sir Keith Williamson, "Changing Factors in Air Power," *NATO's Sixteen Nations*, Vol. 29, No. 4, April 1984, p. 85.

attacks on follow-on forces and undermines to some extent the RAF's emphasis on autonomy at lower echelons of command. Again, intelligence dependence raises doubts whether the RAFG can take quick advantage of newly obtained target information or, considering the RAF's limited variety of armor-piercing munitions, whether these sorties can be effective. Clearly the capabilities that can be acquired at reasonable cost are a major determinant of RAF air employment concepts.

The RAFG and the British Army of the Rhine (BAOR) consider themselves to be more advanced than U.S. forces in Europe in planning joint air-land operations.⁵ This judgment may be based on the fact that British air and ground forces in Germany have been collocated for a longer period than their American counterparts to the South, as well as on the assumption that collocation breeds cooperation and "jointness." It is unlikely that mere collocation necessarily breeds agreement on the proper uses of air power in support of ground forces, and much more likely that cooperative leadership is more important in identifying areas for joint combat activity.⁶

In sum, the interactive effect of the RAF's tradition of operational independence and the austerity imposed by budget limitations have placed a special premium on tactical innovation. These constraints limit the RAF's willingness to allow NATO air doctrine to be driven by the technical capabilities more readily available to the USAF than to any other air service in NATO. As a result, the U.K. delegation to the Tactical Air Working Party is generally reluctant to accept innovations in NATO's air doctrines that change the familiar organization of relations and principles or modifies a hierarchy of missions that may already be straining RAF capabilities.

⁵On the strength of a 1981 defence estimate, the British created a Joint Force Headquarters (JFHQ) to improve upon command and control procedures for joint operations. In the Autumn of 1983, the British conducted joint force exercises in Scotland to prove out the command and control lessons learned during the Falklands campaign. In this exercise, named "Winged Victory," *Jaguars*, *Tornados*, and *Harriers* were tasked with conducting Offensive Air Support missions. A maximum of 30 sorties a day were scheduled for an eight day period. The value of this sort of joint training effort is high, but the "lessons" of the Falklands campaign may be unique to the British and not broadly relevant to 2ATAF assignments.

⁶For an authoritative discussion of recent trends in joint RAF/BAOR operations in the NORTHAG/2ATAF region, see General Sir Nigel Bagnall, "Concepts of Land/Air Operations in the Central Region: I," *RUSI*, Vol. 129, No. 3, 1984, p. 59; and its companion piece by Air Marshall Sir Patrick Hine, "Concepts of Land/Air Operations in the Central Region: II," *RUSI*, Vol. 129, No. 3, 1984, p. 63.

BRITISH PARTICIPATION IN THE TAWP

Although not alone in using parliamentary procedures to prosecute or protect their interests, among the NATO allies the British are considered by many past USAF observers to be the most bureaucratically effective member nation within the TAWP. The size of the U.K. delegation is approximately the same (five) as that for the United States (six), but the British take full advantage of the opportunity available for NATO's subordinate commands to send representatives to the TAWP. At a recent TAWP meeting, in addition to its five members, other U.K. nationals represented several major and subordinate commands.⁷

Because each national delegation is permitted to have only one individual address the main body of the Working Party, it might seem that the expanded British representation was valuable only in terms of the added support it provided to the head of the national delegation. But the number of British nationals present and the familiarity derived from the small size of their service afford the British the means to pursue their national interests effectively and in a coordinated manner. This can be particularly valuable when the Working Party breaks up into smaller panels to work on particular ATPs. With enough people to attend most of the panels, and often with someone from the national delegation as recording secretary, the air power interests of Great Britain can be adequately addressed and supported.

Additionally, the British try to ensure that those who lead the U.K. delegation or serve as command representatives are experienced and have attended more than one Working Party meeting. For this reason, the U.K.'s "corporate memory" is likely to be better than that of the United States, where senior officers rotate through positions more frequently and have less opportunity to develop familiarity with the issues, procedures, and personalities within the Working Party. This continuity of experience provides the British with an ability to anticipate other national positions on contentious issues, and affords them the information and assurance to act as effective moderators in debates. Indeed, the head of the U.K. delegation will often moderate a debate. But if an issue proves too contentious, like the recent U.S. SEAD proposal, the suggestion is frequently made to postpone resolution to a subsequent meeting of the Working Party.

⁷The commands represented included the Commanders in Chief for the English Channel and United Kingdom Air Defense, the Air Component Commander for the Channel and the East Atlantic, a representative from 2ATAF, and a British Wing Commander assigned to represent the interests of Allied Air Forces in Central Europe. This doubled the number of U.K. nationals present at the meeting.

WEST GERMAN INTERESTS AND THE ROLE OF AIR POWER

West German interests in NATO air doctrine are dominated by the politics of the Federal Republic's twin position as the primary target of potential Soviet aggression in Europe and the principal NATO partner of the United States. As such, West German interests lie in preserving American security guarantees, reducing U.S.-Soviet tension, enhancing their own position of influence with each of the superpowers, and insuring the *defensive* character of NATO's force structure and capabilities. The interests of the West German Air Force (GAF) are necessarily driven by these national influences, and the West German delegation to the TAWP often emphasizes them rather than the more specific and immediate aspects of air doctrine and force employment.

The German Air Force is a product of the rearmament of West Germany that began in 1955. The rearmament of West Germany took place within the strict confines of the NATO alliance structure, thus creating both a setting and an incentive structure for pursuing West German security interests. Given the context in which West Germany moved from vanquished adversary to coalition partner, the GAF became an institution highly attuned to the political interests of the new Republic—an institution aimed at maintaining the operational credibility of NATO's *defensive* posture. Additionally, understanding NATO's inner workings became an essential element of professional effectiveness for West German military officers. Senior officers are well-trained in the delicate politics of the Federal Republic's position within NATO and the East-West balance. In this regard, the West German delegates to the TAWP are highly sensitive to any suggestion of change in doctrinal emphasis that might suggest a weakening of the American commitment to European security, a softening of support for forward defense, or a change in the operational concepts that underscore deterrence as they conceive of it.

The overriding importance of NATO for West German security is also evident in the structure and operations of the GAF. It is fully integrated in the NATO command structure and has no role or mission outside its assigned NATO areas of responsibility, and the Commander for AAFCE exercises operational control over the entire GAF in wartime. The GAF is also functionally organized according to the NATO standard principle of "general staff divisions," and the doctrine that governs German operations is also that of NATO: ATP-33, ATP-27B, and the associated AAFCE manuals. The GAF actively trains to these "combined" standards to the extent that budgets, weather conditions, and the availability of airspace permit.⁸ Joint operations with allied air forces are also pursued actively, but the

⁸See "Euro/NATO Training 1982 for Forward Air Controller (FAC)," West German Air Force Doctrinal Training and Evaluation Group, Air Ground Operations Section, Fighter Bomber Wing 49, Furstenfeldbruck AFB. Contained in Intelligence Information Report # 6 834 5212 82.

problems of coordination are greatly compounded by the differences between national capabilities and training budgets.⁹

The Federal Republic's political interests also influence many operational issues. The most compelling example is the West German sensitivity to the political implications of crossing the inter-German border, with particular concern for the timing and nature of such actions. Gaining permission from the Federal Republic's political authorities to fly east across the inter-German border is, of course, a prerequisite for conducting an effective Offensive Counterair campaign against Soviet airfields in Warsaw Pact territory. But the West Germans are highly sensitive to this issue, especially if the need for such operations were to come during the early stages of conflict when the prospect of a negotiated settlement or ceasefire might appear more promising. As stated in a recent West German Ministry of Defense publication: "In a defensive alliance such as NATO, *whose declared strategy is strictly reactive*, the existence of air offensive forces is an effective contribution to deterring a potential enemy."¹⁰ As is often the case, the emphasis here is on deterrence and not warfighting. The FRG is not unique in confronting internal conflicts between national interests in deterrence and the operational imperatives of combat, and the issue of obtaining West German cooperation and agreement on early border crossing remains unresolved despite its paramount importance for NATO.

The effects of West Germany's political interests are also evident in the mission emphases of the GAF. Although the attack missions associated with Counterair and Offensive Air Support operations are of considerable importance, an overriding FRG interest is in maintaining a defensive posture that preserves its territorial integrity.¹¹ Consequently the GAF emphasizes air defense as the natural analogue of Forward Defense. The GAF contribution to NATO's air defense capabilities includes two F-4F fighter wings that can operate with or without the support of four radar control and reporting stations¹²

⁹For over 25 years many of the limitations that confront joint training in Europe were offset by the GAF's advanced pilot training program operating at Luke AFB in the United States. Certainly some U.S. doctrinal bias and operational influence were transmitted during the lifetime of this defunct training program. Some training of West German pilots is now performed at George AFB in California. The Luftwaffe also uses Goose Bay in Labrador in the summer for low level training of several fighter-bomber squadrons.

¹⁰Note that the statement provides little detail regarding the plausible criteria for approving a defensive reaction. See "The German Air Force," Air Force Section, Ministry of Defense, Bonn, May 1982, p. 21 (emphasis added).

¹¹See the section, The Defensive Character of NATO Strategy, in "Factors of Security Policy Governing the Development of the Bundeswehr," *The Situation and the Development of the Federal Armed Forces: White Paper 1985*, Ministry of Defense, Bonn, 1985, paragraphs 55-60.

¹²This ability to operate F-4s "autonomously," without close control, is one source of similarity between GAF and RAF operational concepts. Ministry of Defense, 1982, p. 11.

(although given the limitations of the F-4F's target acquisition radar it might be preferable if they operated under ground control). According to the West German Ministry of Defense, "the fighter-interceptors of the [German] Air Force are tracked by the radars *and directed in accordance with the instructions of higher headquarters* to intercept penetrating enemy aircraft."¹³ Given the integration of the GAF into NATO's command structure, "higher headquarters" refers to the Air Sector Operating Center serving joint interests. German air defense also includes missile batteries controlled by battalion operations centers connected to Sector Operations Centers (SOCs). The German radar systems are also netted to the NATO Air Defense Ground Environment.

Operating in both 2ATAF and 4ATAF, the GAF attributes great importance to the stability of doctrine and procedure as found in ATPs and the derivative manuals issued by the Commander of AAFCE. Stability, in the GAF context, implies a slow rate of change in doctrine, which limits the effects of differences between the operating procedures of 2ATAF and 4ATAF.¹⁴

Finally, future budget and manpower limitations potentially threaten the credibility of present GAF mission declarations. Air defense will probably remain a mission priority, although the ratio of surface-to-air to air-to-air weapons will probably be determined by the civilian leadership as influenced by the United States, rather than by the service itself. The decisions on what equipment to acquire will also be affected by European interest in developing and producing "native" weaponry rather than buying from the Americans. The Germans share that ambition with the British—and their French economic partners are dogmatic in the matter.

WEST GERMAN PARTICIPATION IN THE TAWP

Consistent with its role in NATO, the Federal Republic assigns as many individuals to the TAWP as do the British and Americans. However, these individuals do not all attend the plenary session at the same time, reducing the delegation's apparent size and any potential fears on the part of the smaller European allies that the FRG might dominate the activities.

The West German delegation typically includes representatives from the Ministry of Defense and officers with ground liaison experience, in addition to officers assigned to the

¹³Ibid., p. 17. Emphasis added.

¹⁴To some extent, any tensions between the standard operating procedures of 2ATAF and 4ATAF are offset by the fact that the GAF tends not to rotate units and personnel assigned to a given base. Hence, GAF experience and familiarity are appropriately keyed to the area in which initial operations will be conducted.

GAF Air Staff. Regardless of their current assignment or service affiliation, the West German delegates are all well informed on the issues to be addressed in the Working Party and are sensitive to the subtleties and implications of the existing NATO air doctrines for their own national security interests.

In keeping with their apparent desire for a low profile, the West Germans frequently rely on the comments of other delegations to initially broach objections to a given proposal or issue. Rather than taking the lead and presenting its own position first, the West German delegation will often pose questions that serve to flush out the opinions of the other European delegations. Then, if especially concerned with a proposal, German spokesmen may elicit and exploit the comments and objections of such smaller European allies as the Belgians or Dutch.

In all of their activities in the Tactical Air Working Party, the West Germans appear to favor a formal and perhaps even legalistic approach to the process of up-dating and amending NATO air doctrine. They are exacting and literal in their interpretations of the language of NATO documents and proposed amendments. Consequently, they exhibit considerable discomfort with the use of general or broad terminology, such as "flexibility." On occasions when they do take the initiative in the plenary or sub-panel meetings, the delegation is often concerned about narrowing the range and clarifying the meaning of the terms.

THE INTERESTS AND ACTIVITIES OF OTHER ALLIES IN THE TAWP PROCESS

To a greater extent than the British, West Germans, or Americans, national participation in the TAWP by other NATO allies is often governed by domestic political concerns, budgetary limitations, and regional security concerns. French participation, of course, presents a special case because the French withdrew their forces from NATO's military command structure in 1966. Although French delegates do attend the annual Working Party meetings, they often choose to function simply as interested observers absorbing the sense of the Working Party's deliberations. At times this may appear to create a one-way flow of information that cannot assure effective combat integration, but the actual details for coordinating potential French involvement in NATO operations are worked out bilaterally and far removed from the Tactical Air Working Party.

The other national delegations to the TAWP represent smaller member states with smaller air forces and limited financial resources. Few of these can afford to assign staff officers to address doctrinal issues full-time. Although the smaller nations have long military histories and traditions older than those of U.S. services, few of them have extensive or recent operational experience. As a consequence, their air forces generally derive their

doctrinal interests from the operational practices and procedures of the NATO commands in which they serve or from the tactical arts associated with their airframes and equipment.

Nevertheless, there are examples among these air forces of tension among national, service, and operational command interests. Belgium, Denmark, Norway, and the Netherlands all participate in the TAWP, and each of them also participated in the European co-production of General Dynamics' F-16 aircraft. Although the national air forces of these countries operate their F-16s in general concert with the tactical specifications developed by the USAF, the similarity often stops there. The air power interests of the F-16 countries are constrained by their national security policies, their narrowly focused operational concerns, and their small defense budgets. For example, Belgium and the Netherlands have rather limited air power interests; they are mostly concerned with national air defense and providing limited tactical support to their national ground forces in the Northern Army Group sector.¹⁵ The entire Belgian Air Force has roughly 150 combat aircraft with two squadrons of F-16As and F-16Bs operating with *Mirage 5BA/5BDs* in the fighter ground-attack role and two squadrons of F-16s providing homeland air defense. The Royal Netherlands Air Force has some 175 combat aircraft and assigns its F-16s to fighter ground-attack and interceptor roles.¹⁶ With limited budgets and manpower, these small but professional air forces cannot afford to dedicate too much time and attention to the finer points of NATO doctrine.

To a considerable extent, the Belgians follow the lead of the British delegation and the representatives from 2ATAF on matters of doctrine and receive support from the French on matters of terminology. The Dutch are very much concerned with air defense of their port facilities and look to the British delegation, the 2ATAF representatives, and the representatives from the Channel Command for doctrinal leadership.¹⁷ Moreover, the political consensus on defense within these two countries is often a fragile matter, as witnessed by the decision of the Dutch government to cancel participation in NATO plans for the air delivery of nuclear weapons and the domestic turmoil caused by the deployment of NATO's Intermediate-range Nuclear Forces.

¹⁵These comments are based on research by RAND colleague John Lund.

¹⁶For more complete data on the size and structure of the Belgian and Dutch air forces, see *The Military Balance: 1986-1987*, International Institute for Strategic Studies, London, 1986, pp. 32 and 45.

¹⁷Indeed, the Dutch delegation to the TAWP has sometimes been headed by a nonrated naval officer.

The Nordic members of the alliance, Denmark and Norway, also have small air forces that serve politically limited interests along NATO's Northern Flank and Baltic approaches. Almost three-fourths of the Norwegian Air Force is made up of F-16s (68 aircraft), as is half of the Danish Air Force (48 aircraft).¹⁸ The Norwegian and Danish air forces assign their F-16s almost exclusively to air defense and to the interdiction of amphibious forces.¹⁹ The NATO publications on Offensive Air Support (ATP-27B) and those sections covering attack of surface ships in the publication of Tactical Air Support of Maritime Operations (ATP-34) provide both of these allies with much of their doctrinal guidance. However, ATP-42 on Offensive Counter Air (OCA) has limited value because OCA is not included as an element of the Nordic air concept (known as FXA) to which both the Norwegians and Danes subscribe.

The roles and missions of the Norwegian and Danish air forces are determined entirely by traditions of self-defense and nonaggression. There are no plans for the use of Norwegian air power beyond the narrow bounds described by this unique Nordic air doctrine. Training time, funding, and activities of the Norwegian Air Force are also severely limited. The Danes also support the Nordic tradition of self-defense; their small air force similarly has narrow applications in air defense and anti-invasion efforts.

For the protection of their special interests in the TAWP, the Danes and the Norwegians look to the representatives from such regional commands as Allied Forces Northern Europe (AFNORTH) or the commands covering the Baltic approaches. The Danes can also rely on the West German delegation to support their operational concerns as the air arm of the West German navy operates off their shores. In general, Norway and Denmark do not support doctrinal initiatives that call for or describe air operations beyond the bounds of these politically circumscribed interests.

In the Southern region, three countries' interests and capabilities affect the TAWP and NATO air doctrine. The first is Italy, which operates the 5ATAF region and maintains an air force of some 300 aircraft, many of which are old Lockheed F-104 *Starfighters* and Fiat G-91s. Although new *Tornado*s will help round out Italy's fighter ground-attack capability, almost half of the Italian Air Force is dedicated to interceptor and reconnaissance

¹⁸*The Military Balance, 1986-1987*, pp. 46 and 37.

¹⁹The F-16s will be employed in the FXA-role (Fighter Interceptor-Attack). The FXA mission is "to defend the air bases and C3 system, the harbors which will receive allied and Norwegian reinforcements and the ground force staging and deployment areas, and to participate together with the Navy and the Coastal Artillery in anti-invasion operations against Soviet naval infantry landings." See Major General Olav F. Aamoeth, "The Air Defense of Norway," *NATO's Sixteen Nations*, February/March 1987, p. 87.

²⁰*Ibid.*, p. 43.

roles.²⁰ With limited funds for training or stocking new munitions, the Italian Air Force is quite conservative in its operations. It limits live firing, does little dissimilar air combat training, and honors conservative engagement tactics.²¹ However, the main operational problem the Italians face is that the command and control structure and facilities of 5ATAF are not on a par with those of the Central Region.

The Italian delegation has repeatedly called for the Working Party to develop appropriate regional supplements to the existing ATPs. Despite West German support for addressing this matter, the issue of regional supplements has never been properly staffed, nor have the necessary documents been produced. The concerns of the Italian delegation also include the management and control of airspace and the particularly entangled matter of dealing with both land-based and sea-based aircraft operating in proximity. Although the Italian delegation has sought American support in addressing this concern, resolution would probably require joint staffing in the United States and considerable interaction with the air and naval commands in the area, but neither has been forthcoming.

The other Southern Flank nations that have interests affecting the TAWP are Greece and Turkey. Although the air forces of both nations are due to be modernized,²² the problem here is not so much with their capabilities as with their politics. The continuing antagonisms between Greece and Turkey make the development and ratification of NATO air doctrines more difficult by complicating the internal negotiating process. Moreover, Greek participation in NATO has sometimes been withheld as the political price for American attempts at being even-handed regarding Greek and Turkish disputes. Although the TAWP cannot realistically address these difficulties, they continue to present a substantive challenge to the development of adequate procedures for the control of aircraft and the management of airspace around the Aegean.

²¹This comment draws on research by RAND colleague Mark Lorell.

²²Agreements have been signed clearing the way for Greece to acquire F-16s from the United States. Negotiations for Turkish acquisition of F-16s have been underway for several years. See "U.S. To Sell Greece 40 F-16 Fighters," *The New York Times*, January 12, 1986, p. 1.

IV. CONCLUDING REMARKS AND RECOMMENDATIONS

The preceding discussion has attempted to provide a summary of the Tactical Air Working Party's mechanics and pitfalls. What is functionally at stake are three competing sources of constraint in negotiation: (1) differing national interests and defense budgets; (2) traditional service prerogatives, procedures, and rivalries; and (3) the operational imperatives of NATO's commands. The extent to which proposed procedural or doctrinal innovations can pass easily through the gauntlet formed by these constraints is more often a measure of their noncontroversial nature than of their merit. Indeed, these competing constraints are an inescapable aspect of the TAWP, as well as NATO, and make the swift adoption of new proposals most unlikely.

These competing sources of constraint also force members of the Working Party to recurrently visit the question of who has the "correct" vision of airpower in future conflicts: nations as force providers, NATO commands as planners, or individual service units as operators. Often the "least common denominator" approach becomes the solution, but usually after considerable debate and discussion. It is the lengthy, often iterative process of negotiation that provides time and opportunity to discover allied interests and operational concerns. The process is also a hedge against TAWP's adopting concepts that have only limited regional applications or too narrow a basis of support among the member nations and constituent services.

Although meetings of the TAWP can sometimes approximate a conference of lexicographers in the degree to which the participants argue so passionately over the meaning of terms, the debates are not just over "mere words." Each delegation has fundamental, sometimes immutable interests to protect, and each has its own limitations in pursuing those interests. The coherence and clarity of doctrinal publications are essential to their having value and meaning for all allied planners and operators. If for no other reason than that doctrine is a key to the alliance's success in efforts to plan for and engage in coalition warfare, the language of common doctrine necessarily assumes a degree of uncommon importance.

The important objective of achieving harmony between U.S. and NATO air doctrines should not stand or fall on parochial interests drawn from doctrinaire attitudes. Understanding allied interests and antipathies regarding combined air doctrine and developing an accurate assessment of what can and cannot be accomplished within the Tactical Air Working Party may help to reduce unnecessary tensions and to improve the possibilities for further integration of the NATO country air doctrines.

The actual duration of Working Party sessions is quite short, and some allied delegations have a bureaucratic advantage over the United States because they include officers with longer experience in negotiating NATO air doctrine. The West German and British delegates serve longer at the TAWP than their American counterparts and therefore have an opportunity to gain greater understanding of the process and politics of negotiating NATO air doctrine.

Given the environment in which NATO doctrine is negotiated, proposals for changes may have a greater chance of success if doctrinal initiatives are introduced first through informal channels: (1) outside the formal confines of the Working Party through "back channel" discussions with appropriate individuals from key allied countries; and (2) outside the Working Party's immediate confines in small trilateral or bilateral "select" panels authorized by the Working Party to develop materials for subsequent consideration. This was the case in the mid-1970s when the command and control principles of ATP-33 were agreed upon and in the late 1970s when Battlefield Air Interdiction (BAI) became an aspect of ATP-27B. In both cases the U.S. delegation worked closely with individuals from the British and West German delegations.¹

Adopting the use of "select" panels and maintaining a direct but informal "back channel" dialogue with key officers from major allied delegations can also enhance cohesion by avoiding displays of discord or disagreement before the full Working Party. The most important results of select panels and back-channel negotiations are:

- Improved coordination on potentially contentious issues and early identification of likely solutions,
- Greater continuity in doctrine development,
- Development of appropriate "gameplans" for the presentation of doctrinal initiatives to other allies, and
- Enhanced appreciation of allied operational concerns and institutional constraints.

The U.S. Air Force also has access to several sources of information regarding allied interests that could be used to further enhance understanding of the NATO air doctrine process. The record of previous TAWP sessions is an obvious and invaluable tool in this

¹The U.S. delegation finally accepted BAI only when no acceptable alternatives remained; the USAF still is antagonistic to the BAI concept that Corps commanders should coordinate interdiction operations.

regard, and many sources already exist within the Air Staff and the elements of the USAF operating in allied countries. Additional sources of information on allied air power interests might include reports from:

- U.S. Air Attaches;
- USAF Exchange Officers serving with allied operational units;
- State and Defense Department estimates of allied defense budget allocations and procurement programs, mission priorities and capabilities, and domestic events that may affect national air power interests or NATO participation.

National interests and differences in service traditions and capabilities will continue to create tensions in the TAWP and to make the process of ironing out a common air doctrine for NATO somewhat difficult. Nevertheless, in the past two decades, the NATO allies have recorded considerable success in integrating air doctrines through the mechanisms of the TAWP and standardized agreements such as the STANAGs and ATPs. A greater degree of integration can be achieved through further negotiations at the TAWP meetings, and two keys to success in this forum are a better understanding of the process and allied interests that shape the formulation of NATO air doctrine.

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